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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/956,954	09/21/2001	Walter Etter	Etter 4/AGER027	2462

7590 07/13/2004  
Docket Administrator  
Agere Systems, Inc.  
P.O. Box 614  
Berkeley Heights, NJ 07922-0614

EXAMINER

JAMAL, ALEXANDER

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/956,954

Applicant(s)

ETTER, WALTER

Examiner

Alexander Jamal

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1,3</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (page 2) filed September 21, 2001 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Claim Objections***

2. **Claim 20** objected to because of the following informalities: The claim is dependant upon claim 11. Claim 11 indicates the compander is located at the far end. If located at the far end, the compander will vary the compensation ratio based upon the near end noise (from the far end 'input' signal) (Specification page 22). Examiner notes that if claim 20 were to read "The method as in claim 16", then the claim would be rejected for the same reasons (listed below) as claim 10.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-19** rejected under 35 U.S.C. 103(a) as being unpatentable over Matt et al (5909489).

As per **claim 1**, Matt discloses a noise compensation system (Fig. 2a) comprising a first compander section 3.7 adapted to amplify a near end signal ( $Y(k)$ ) based upon a far end signal ( $x(k)$ ) noise estimate (a noise level on the receive path) (ABSTRACT, Col 2 line 65 to Col 3 line 10). However, Matt does not disclose that the compander is adapted to amplify a far end signal based upon a near end noise estimate.

Matt's system may be applied to any type of communication device, whether it is located at the 'near-end' or 'far-end'. Matt's disclosed system is located at a near end ('near end' as defined by applicant's specification page 8). If it were to be located at the far-end of the network then Matt's system would read on applicant's claim 1. It would have been obvious to one of ordinary skill in the art at the time of this application that one system could be located in a near end communications device (at the hybrid for example), and an additional system located at a far end communications device for the advantage of providing noise compensation for both ends of the communications network.

As per **claim 11**, claim rejected for same reasons as the rejection of claim 1. The system described would perform the method in applicant's claim 11.

As per **claim 2**, In Matt's compander (if located at the far end) is adapted to reduce the amplification of low level far end noise ('line echoes' in Col 4 lines 1-5) based upon a far end noise level estimate. The system measures the far end noise ('near echo' in Col 3 line 4 would be 'far end noise' if the system was located at the far end).

As per **claim 3**, the compander (if located at the far end) is adapted to vary the compander characteristic position (Col 3 lines 5-28, Figs. 3a,3b,3c) based upon the gain being derived from the near end noise estimate and far end speech level (Col 3 lines 29-33) (if located at the far end, then 'near end noise' would be far end noise and far end speech level would be near end speech level). The characteristic position includes the compression range onset point.

As per **claims 4,5**, the compander (if located at the far end) comprises a gain unit (compander 3.7 in Fig. 2b) adapted to vary the ratio of compensation gain increase per near end noise increase (included in the 'characterisitic position' mentioned above) (Col 3 lines 5-28, Figs. 3a,3b,3c). The adaptation is based upon the near-end noise level (if located at the far end, then 'near end noise' would be far end noise or 'noise level on the receive path').

As per **claims 6-10**, claims rejected for same reasons, respectively, as claims 1-5, if an additional compander system (second compander) was located at the 'near-end' as opposed to the 'far-end' (which was assumed for claims 1-5).

As per **claims 12-19**, claims rejected for the same reasons, respectively, as claims 2-9. The apparatus described would perform the method of the claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ  
July 12, 2004

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600